

1. The output of lexical analyser is

- a) A set of RE
- b) Syntax Tree
- c) Set of Tokens
- d) String Character

2. The symbol table implementation is based on the property of locality of reference is

- a) Linear list
- b) Search tree
- c) Hash Table
- d) Self Organisation

3. Object program is a

- a) Program written in machine language
- b) Program to be translated into machine language
- c) Translation of high-level language into machine language
- d) None of the mentioned

4. Which concept of FSA is used in the compiler?

- a) Lexical analysis
- b) Parser
- c) Code generation
- d) Code optimization

5. Which concept of grammar is used in the compiler

- a) Lexical analysis
- b) Parser
- c) Code generation
- d) Code optimization

6. Which of the following are Lexemes?

- a) Identifiers
- b) Constants
- c) Keywords
- d) All of the mentioned

7. What constitutes the stages of the compilation process?

- a) Feasibility study, system, design, and testing
- b) Implementation and. documentation
- c) Lexical analysis, syntax. Analysis and code generation
- d) None of the mentioned

8. The lexical analyser takes_____as input and produces a stream of_____as output.

- a) Source program, tokens
- b) Token, source program
- c) Either of the two
- d) None of the mentioned

9. Parsing is also known as

- a) Lexical Analysis
- b) Syntax Analysis
- c) Semantic Analysis
- d) Code Generation

10. A compiler program written in a high-level language is called

- a) Source Program
- b) Object Program
- c) Machine Language Program
- d) None of the mentioned

11. A system program that brings together separately compiled modules of a program into a form language that is suitable for execution

- a) Assembler
- b) Linking loader
- c) Cross compiler
- d) None of the mentioned

12. A programmer, by mistake writes a program to multiply two numbers instead of dividing them, how can this error be detected

- a) Compiler
- b) Interpreter
- c) Compiler or interpreter
- d) None of the mentioned

13. The RE in which any number of 0's is followed by any number of 1's followed by any number of 2's is

- a) $(0+1+2)^*$
- b) $0^*1^*2^*$
- c) $0^* + 1 + 2$
- d) $(0+1)^*2^*$

14. The regular expression have all strings of 0's and 1's with no two consecutive 0's is:

- a) $(0+1)$
- b) $(0+1)^*$
- c) $(0+\epsilon)(1+10)^*$
- d) $(0+1)^*011$

15. The regular expression with all strings of 0's and 1's with at least two consecutive 0's is:

- a) $1 + (10)^*$
- b) $(0+1)^*00(0+1)^*$
- c) $(0+1)^*011$
- d) $0^*1^*2^*$

16. Which of the following is NOT the set of regular expression $R = (ab + abb)^* bbab$

- a) ababbbbab
- b) abbbab
- c) ababbabbbab
- d) abababab

17. String generated by

$S \rightarrow aS/bA,$

$A \rightarrow d/ccA$

a) aabccd

b) adabcca

c) abcca

d) abababd

18. Consider the production of the grammar $S \rightarrow AA$ $A \rightarrow aa$ $A \rightarrow bb$

Describe the language specified by the production grammar.

a) $L = \{aaaa, aabb, bbaa, bbbb\}$

b) $L = \{abab, abaa, aaab, baaa\}$

c) $L = \{aaab, baba, bbaa, bbbb\}$

d) $L = \{aaaa, abab, bbaa, aaab\}$

19. If R is regular language and Q is any language (regular/ non-regular), then Pref (Q in R) is _____

- a) Non-regular
- b) Equal
- c) Infinite
- d) Regular

20. The production of the form $no\ terminal \rightarrow \Lambda$ is said to be null production.

- a) False
- b) True

21. In a compiler the module that checks every character of the source text is called

- a) The code generator
- b) The code optimizer
- c) The lexical analyzer
- d) The syntax analyzer

22. The context free grammar is ambiguous if

- a) The grammar contains non-terminals
- b) Produces more than one parse tree
- c) Production has two non-terminals side by side
- d) None of the mentioned

23. Another Name for Lexical Analyser

- a) Linear Phase
- b) Linear Analysis
- c) Scanning
- d) All of the mentioned

24. An individual token is called _____

- a) Lexeme
- b) Lex
- c) Lexeme & Lex
- d) None of the mentioned

25. Lexical Analyser's Output is given to Syntax Analysis.

- a) True
- b) False

26. Which phase of the compiler is Lexical Analyser?

- a) First
- b) Second
- c) Third
- d) None of the mentioned

27. Input to Lexical Analyser is

- a) Source Code
- b) Object Code
- c) Lexeme
- d) None of the mentioned

28. A_____ is a string of characters which form a syntactic unit.

- a) Lexeme
- b) Lex
- c) Lexeme & Lex
- d) None of the mentioned

29. When expression $\text{sum}=3+2$ is tokenized then what is the token category of 3

- a) Identifier
- b) Assignment operator
- c) Integer Literal
- d) Addition Operator

30. Which grammar defines Lexical Syntax

- a) Regular Grammar
- b) Syntactic Grammar
- c) Context free Grammar
- d) Lexical Grammar

31. The output of a lexical analyzer is

- a) Machine Code
- b) Intermediate Code
- c) Stream of Token
- d) Parse Tree

32. Which phase of compiler is Syntax Analysis

- a) First
- b) Second
- c) Third
- d) None of the mentioned

33. What is Syntax Analyser also known as

- a) Hierarchical Analysis
- b) Hierarchical Parsing
- c) None of the mentioned
- d) Hierarchical Analysis & Parsing

34. Syntax Analyser takes Groups Tokens of source Program into Grammatical Production

- a) True
- b) False

35. From where it takes its input from?

- a) Lexical analyser
- b) Syntactic Analyser
- c) Semantic Analyser
- d) None of the mentioned

36. A grammar for a programming language is a formal description of

- a) Syntax
- b) Semantics
- c) Structure
- d) Library

37. Which of these features of assembler are Machine-Dependent

- a) Instruction formats
- b) Addressing modes
- c) Program relocation
- d) All of the mentioned

38. A compiler can check?

- a) Logical Error
- b) Syntax Error
- c) Both Logical and Syntax Error
- d) Not Logical and Syntax Error

39. Select a Machine Independent phase of the compiler

- a) Syntax Analysis
- b) Intermediate Code generation
- c) Lexical Analysis
- d) All of the mentioned

40. Which of the following system software resides in the main memory always

- a) Text Editor
- b) Assembler
- c) Linker
- d) Loader

41. Output file of Lex is ____ the input file is Myfile?

- a) Myfile.e
- b) Myfile.yy.c
- c) Myfile.lex
- d) Myfile.obj

42. Type checking is normally done during?

- a) Lexical Analysis
- b) Syntax Analysis
- c) Syntax Directed Translation
- d) Code generation

43. Suppose One of the Operand is String and other is Integer then it does not throw error as it only checks whether there are two operands associated with '+' or not.

- a) True
- b) False

44. In Short Syntax Analysis Generates Parse Tree

- a) True
- b) False

45. By whom is the symbol table created?

- a) Compiler
- b) Interpreter
- c) Assembler
- d) None of the mentioned

46. Semantic Analyser is used for?

- a) Generating Object code
- b) Maintaining symbol table
- c) Generating Object code & Maintaining symbol table
- d) None of the mentioned

47. Which of the following derivations does a top-down parser use while parsing an input string?

- a) Leftmost derivation
- b) Leftmost derivation in reverse
- c) Rightmost derivation
- d) Rightmost derivation in reverse

48. Which of the following statements is false?

- a) Left as well as right most derivations can be in Unambiguous grammar
- b) An LL (1) parser is a top-down parser
- c) LALR is more powerful than SLR
- d) Ambiguous grammar can't be LR (k)

49. Given the following expression grammar:

$E \rightarrow E * F \mid F + E \mid F$

$F \rightarrow F - F \mid \text{id}$

which of the following is true?

- a) * has higher precedence than +
- b) - has higher precedence than *
- c) + and — have same precedence
- d) + has higher precedence than *

50. Which of the following suffices to convert an arbitrary CFG to an LL(1) grammar?

- a) Removing left recursion only
- b) Factoring the grammar alone
- c) Factoring & left recursion removal
- d) None of the mentioned